AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/602,320 Filing Date: June 24, 2003

Title: FLASH MEMORY BLANK CHECK

Assignee: Intel Corporation

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IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of programming a FLASH memory device comprising: issuing a blank check command to a command register within [[a]] the FLASH memory device; and

reading a status bit in a status register within the <u>FLASH</u> memory device to verify that at least a portion of the <u>FLASH</u> memory device is blank[[.]]; and

programming memory locations within the portion of the FLASH memory device verified as blank.

- 2. (Currently Amended) The method of claim 1 further comprising checking a busy bit in the <u>FLASH</u> memory device adapted to signify that the status bit is valid.
- 3. (Original) The method of claim 1 wherein issuing a blank check command comprises: issuing a blank check setup command; and issuing a blank check confirm command.
- 4. (Original) The method of claim 1 further comprising specifying a block to blank check.
- 5. (Currently amended) The method of claim 4 further comprising repeating the listed actions method for more than one block in the memory device.
- 6. (Currently Amended) The method of claim 4 further comprising repeating the listed actions method for each block in the memory device.

7. (Currently Amended) A method of blank checking and programming a FLASH memory device comprising:

receiving a blank check command from a device external to the FLASH memory device;
in response to the blank check command received from a device external to the FLASH
memory device, reading a plurality of memory locations in at least one block of [[a]] the FLASH
memory device; and

writing to a bit in a status register to indicate whether the at least one block is blank, wherein the status register is accessible by the device external to the FLASH memory device; and

receiving data to be programmed in the at least one block.

- 8. (Original) The method of claim 7 wherein receiving a blank check command comprises: receiving a blank check setup command; and receiving a blank check confirm command.
- 9. (Original) The method of claim 7 wherein reading a plurality of memory locations comprises reading each memory location in the at least one block.
- 10. (Currently Amended) The method of claim 7 further comprising: setting a busy bit adapted to signify the <u>FLASH</u> memory device is busy; and clearing the busy bit after writing to the bit in the status register.
- 11. (Original) The method of claim 7 wherein receiving a blank check command comprises receiving an indication of a block to blank check.
- 12. (Original) The method of claim 11 wherein reading a plurality of memory locations comprises reading memory locations in the indicated block.

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13. (Currently Amended) A memory device comprising:

a FLASH memory core; and

a control block adapted to blank check at least a portion of the FLASH memory core; and

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an external interface to allow communication between the control block and a device

external to the memory device, wherein the control block is capable of blank checking the at

least a portion of the FLASH memory core during a programming operation when the memory

device is in use in a system.

14. (Currently Amended) The memory device of claim 13 further comprising wherein the

external interface comprises a status register adapted to signify that the at least a portion of the

FLASH memory core is blank.

15. (Original) The memory device of claim 13 wherein the control block comprises a state

machine.

16. (Original) The memory device of claim 13 wherein the control block comprises a

microcontroller.

17. (Currently Amended) The memory device of claim 13 further comprising an wherein the

external interface including comprises a command register adapted to receive a blank check

command from a device external to the memory device.

18. (Original) The memory device of claim 17 wherein the external interface further includes

a status register.

19. (Currently Amended) An apparatus including a medium adapted to hold machine-accessible instructions that when accessed result in a machine performing:

issuing a blank check command to a <u>command register within a FLASH</u> memory device; and

reading a status bit in <u>a status register within</u> the <u>FLASH</u> memory device to verify that at least a portion of the <u>FLASH</u> memory device is blank[[.]] <u>and</u>

programming memory locations within the portion of the FLASH memory device verified as blank

20. (Original) The apparatus of claim 19 wherein the instructions, when accessed, further result in the machine performing:

checking a busy bit prior to reading the status bit.

- 21. (Original) The apparatus of claim 19 wherein issuing a blank check command comprises: issuing a blank check setup command; and issuing a blank check confirm command.
- 22. (Original) The apparatus of claim 19 wherein the instructions, when accessed, further result in the machine performing:

issuing blank check commands and reading the status bit for more than one block in the memory device.

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23. (Currently Amended) An electronic system comprising:

a direct conversion receiver;

a processor coupled to the direct conversion receiver; and

a memory device coupled to the processor, the memory device including a FLASH memory core, and a control block adapted to blank check at least a portion of the <u>FLASH</u> memory core; and, and an external interface to allow communication between the control block and the processor, wherein the control block is capable of blank checking the at least a portion of the FLASH memory core during a programming operation by the processor.

a processor coupled to the direct conversion receiver and the memory device.

- 24. (Original) The electronic system of claim 23 wherein the control block comprises a microcontroller.
- 25. (Currently Amended) The electronic system of claim 23 wherein the memory device further includes an external interface including comprises a status register adapted to indicate whether the at least a portion of the memory device is blank.
- 26. (Currently Amended) An electronic system comprising:
 - a direct conversion receiver;
 - a FLASH memory device;

and

a processor coupled to the direct conversion receiver and the FLASH memory device;

an article having a machine accessible medium holding instruction that when accessed result in the processor issuing a blank check command to a command register within the FLASH memory device, and reading a status bit in a status register within the FLASH memory device to verify that at least a portion of the FLASH memory device is blank, and programming memory locations within the portion of the FLASH memory device verified as blank.

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(Original) The electronic system of claim 26 wherein issuing a blank check command 27. comprises:

issuing a blank check setup command; and issuing a blank check confirm command.

28. (Currently Amended) The electronic system of claim 26 wherein the instructions, when accessed, further result in the machine performing:

issuing blank check commands and reading the status bit for more than one block in the FLASH memory device.